

CLAIMS

1. Peptide having at least the following amino acid sequence:

5 -W-S-A₁-C-S-A₂-C-G- (SEQ ID No. 1)

in which A₁ and A₂ are amino acid sequences comprising 1 to 5 amino acids with the exception of the peptides or polypeptides having one of the sequences:

-W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

10 -W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R-?

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

15 -W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- and T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N.

2. Peptide according to Claim 1, characterized in that A₁ is Pro or -X₁-W-X₂-X₃- (SEQ ID No. 5), X₁, X₂ and X₃ being chosen, independently of each other, from G, S and C.

3. Peptide according to Claim 2, characterized in that A₁ is X₁-W-S-X₂ (SEQ ID No. 6).

4. Peptide according to one of Claims 1 to 3, characterized in that A₂ is chosen from: R-S, V-S and V-T.

5. Peptide according to one of Claims 1 to 4, characterized in that it comprises at least the sequence -W-S-X₁-W-S-X₂-C-S-A₂-C-G- (SEQ ID No. 7).

6. Peptide according to one of Claims 1 to 5, characterized in that it is:

-W-S-G-W-S-S-C-S-R-S-C-G- (SEQ ID No. 8).

7. Peptide according to one of Claims 1 to 5 of formula:

35 Y-W-S-A₁-C-S-A₂-C-G-Z (SEQ ID No. 9)

in which Y and Z constitute the N- and C-terminal ends of the peptide, or comprise amino acid chains having

Sub
a2

not generic
does not follow
formula

Subcl

less than 6 amino acids, or comprise chains of compounds which are not amino acids.

8. Pharmaceutical composition comprising at least one peptide according to one of Claims 1 to 7 and a pharmaceutically acceptable vehicle.

9. Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

-W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

-W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N,

for the manufacture of a medicine intended for the regeneration of the nervous system cells.

10. Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

-W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

-W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N,

for the manufacture of a medicine intended for the treatment of neurodegenerative diseases.

11. Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

-W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

-W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

5 -W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N,

for the manufacture of a medicine intended for the treatment of pathological conditions and traumas

10 requiring regeneration of the nervous system cells and more particularly of their synaptic outgrowths.

12. Use of a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

15 -W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

20 -W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

-W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N,

for the manufacture of a medicine intended for the treatment of neuroblastomas.

13. Additive for the cellular cultures of nerve cells, characterized in that it comprises a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

30 -W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)

-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)

-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)

-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R

-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R

35 -W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R

-W-S-Q-C-S-V-Y-C-G

-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N

- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N.

14. Cellular expression vector, characterized in that it comprises a nucleic acid sequence expressing a peptide selected from the peptides according to one of Claims 1 to 7 and the peptides having the sequence:

- 5 -W-S-P-C-S-V-T-C-G- (SEQ ID No. 2)
-W-S-S-C-S-V-T-C-G- (SEQ ID No. 3)
-W-S-Q-C-S-V-T-C-G- (SEQ ID No. 4)
-W-S-P-W-S-E-W-T-S-C-S-T-S-C-G-N-G-I-Q-Q-R-G-R
-W-S-H-W-S-P-W-S-S-C-S-V-T-C-G-D-G-V-I-T-R-I-R
10 -W-G-P-W-S-P-W-D-I-C-S-V-T-C-G-G-G-V-Q-K-R-S-R
-W-S-Q-C-S-V-Y-C-G
-T-E-W-S-A-C-S-K-S-C-G-M-G-F-S-T-R-V-T-N-R-N
- or T-E-W-S-A-C-S-K-T-C-G-M-G-I-S-T-R-V-T-N-D-N.

15. Cellular expression vector according to Claim 14, characterized in that it comprises a sequence encoding the peptide of sequence SEQ ID No. 8.